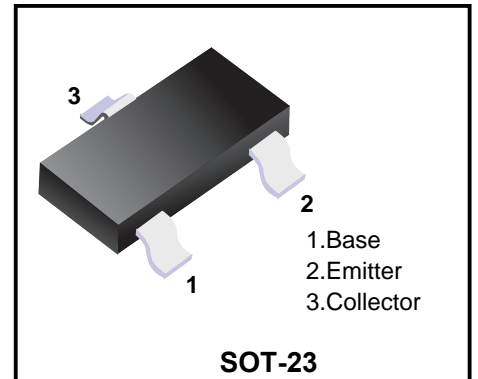


**Medium Power Transistor**



**Features**

- Very Low  $V_{CE(sat)}$ .  $V_{CE(sat)} = -0.1V(Typ.)$  ( $I_c / I_B = 500mA / 50mA$ )
- High current capacity in compact package.

**Absolute Maximum Ratings ( $T_a=25^\circ C$ )**

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	40	V
Collector-emitter voltage	$V_{CEO}$	32	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_c$	0.8	A
Collector current *	$I_{cP}$	1.5	
Collector power dissipation	$P_c$	200	mW
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

\* Single pulse  $P_w=100ms$ .

**Electrical Characteristics ( $T_a=25^\circ C$  unless otherwise specified.)**

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$BV_{CBO}$	$I_c=50\mu A$	40			V
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_c=1mA$	32			V
Emitter-base breakdown voltage	$BV_{EBO}$	$I_E=50\mu A$	5			V
Collector cutoff current	$I_{CBO}$	$V_{CB}=20V$			0.5	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{EB}=4V$			0.5	$\mu A$
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c/I_B=500mA/50mA$		0.1	0.4	V
DC current transfer ratio	$h_{FE}$	$V_{CE}=3V, I_c=100mA$	120		390	
Output capacitance	$f_T$	$V_{CE}=5V, I_E = -50mA, f=100MHz$		150		MHz
Transition frequency	$C_{ob}$	$V_{CB}=10V, I_E=0A, f=1MHz$		15		pF

**hFE Classification**

Marking	AF	
	Q	R
hFE	120~270	180~390

**Ordering information**

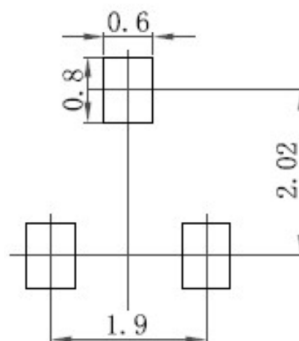
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

**Package Dimensions**

**SOT-23**

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

**The recommended mounting pad size**



## Disclaimer

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